



# NEMAIS

Enterprise Resource Planning (ERP)  
Impact on NAVSEA Logistics Technical Data  
RIC Brief  
26 June 01

NAVSEA 04L2

# Purpose

- ✦ Provide a brief overview and definitions of ERP, NETS and NEMAIS
- ✦ Provide status of what has happened to date
- ✦ Provide our perception of the initial impact on NAVSEA Logistics Technical Data
- ✦ Provide synopsis of NSWC comments pertaining to the NEMAIS Technical Documentation Incorporation White Paper
- ✦ Begin dialog on “how to” communicate these findings to appropriate decision makers/data owners

# ERP acronyms

- ★ NEMAIS *Navy Enterprise Maintenance Automated Information System*  
(the maintenance business “Enterprise”)
- ★ SAP *Systems Application Project* (the ERP COTS “software”)
- ★ NETS *Navy Enterprise Team Ships* (the “team”)

# ERP Defined

- ✴ Enterprise resource planning (ERP) is a core information system that will enable the navy to improve and standardize business processes across organizational, intermediate, and depot maintenance activities.
- ✴ An ERP solution will:
  - ✴ *Integrate business processes.*
  - ✴ *Share common data and processes across navy ship maintenance organizations.*
  - ✴ *Make data available in a near real-time environment.*
  - ✴ *Provide consistent information across ship classes.*

# Current Navy ERP Projects

Project	Sponsor	Core s/w
Program Management	NAVAIR	SAP
Supply & Maintenance Aviation Re-engineering (SMART)	NAVSUP/NAVAIR	SAP
Navy Working Capital Fund	SPAWAR	SAP
<i>Regional Maintenance (NEMAIS)</i>	<i>NAVSEA/CLF</i>	<i>SAP</i>

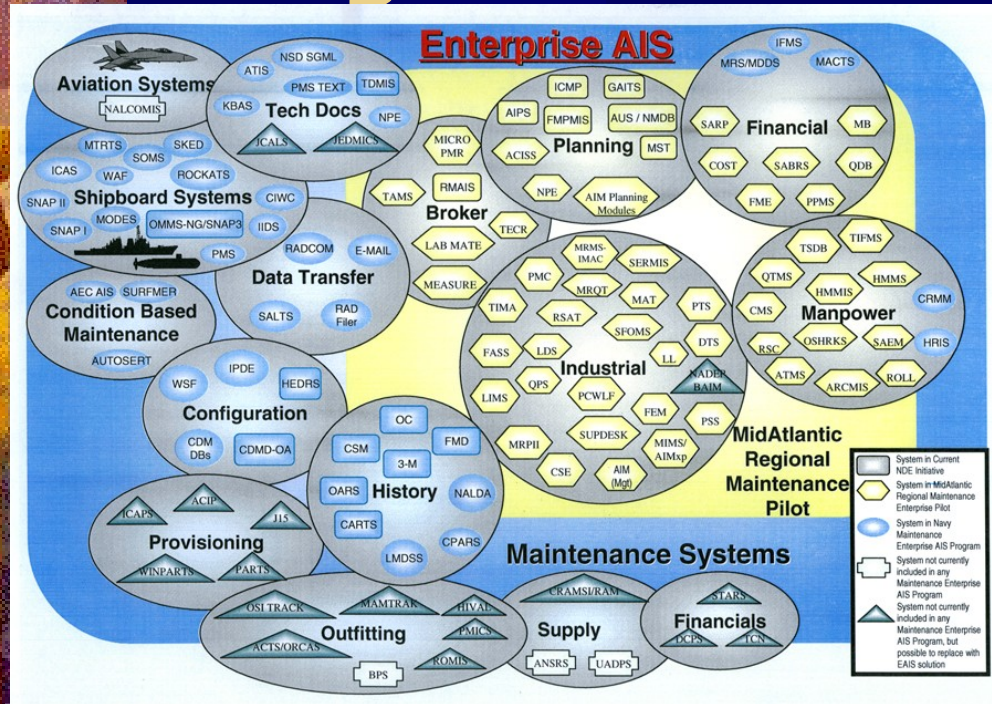
- **4 Approved and Funded Programs**
- **Each Program is 12-18 months**
- **NAVAIR and NAVSUP/NAVAIR Pilots team with E-2 community for “proof of concept”**

# What is NEMAIS?

- ★ The Navy Enterprise Maintenance Automated Information System (NEMAIS) is a phased effort that will install an ERP System in all Naval Shipyards, Supervisor of Shipbuilding sites, Shore Intermediate Maintenance Activities, Trident Refit Facilities, and all Naval ships and submarines.

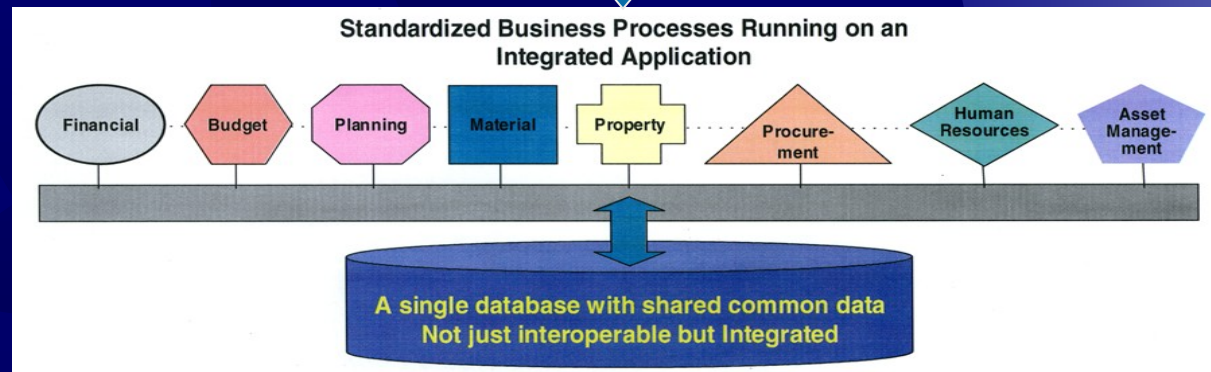


# Regional Maint ERP “As Is”



**What We Have Today**

**What ERP can Provide**



# NEMAIS Partners - NETS

## Team Navy



## VENDOR



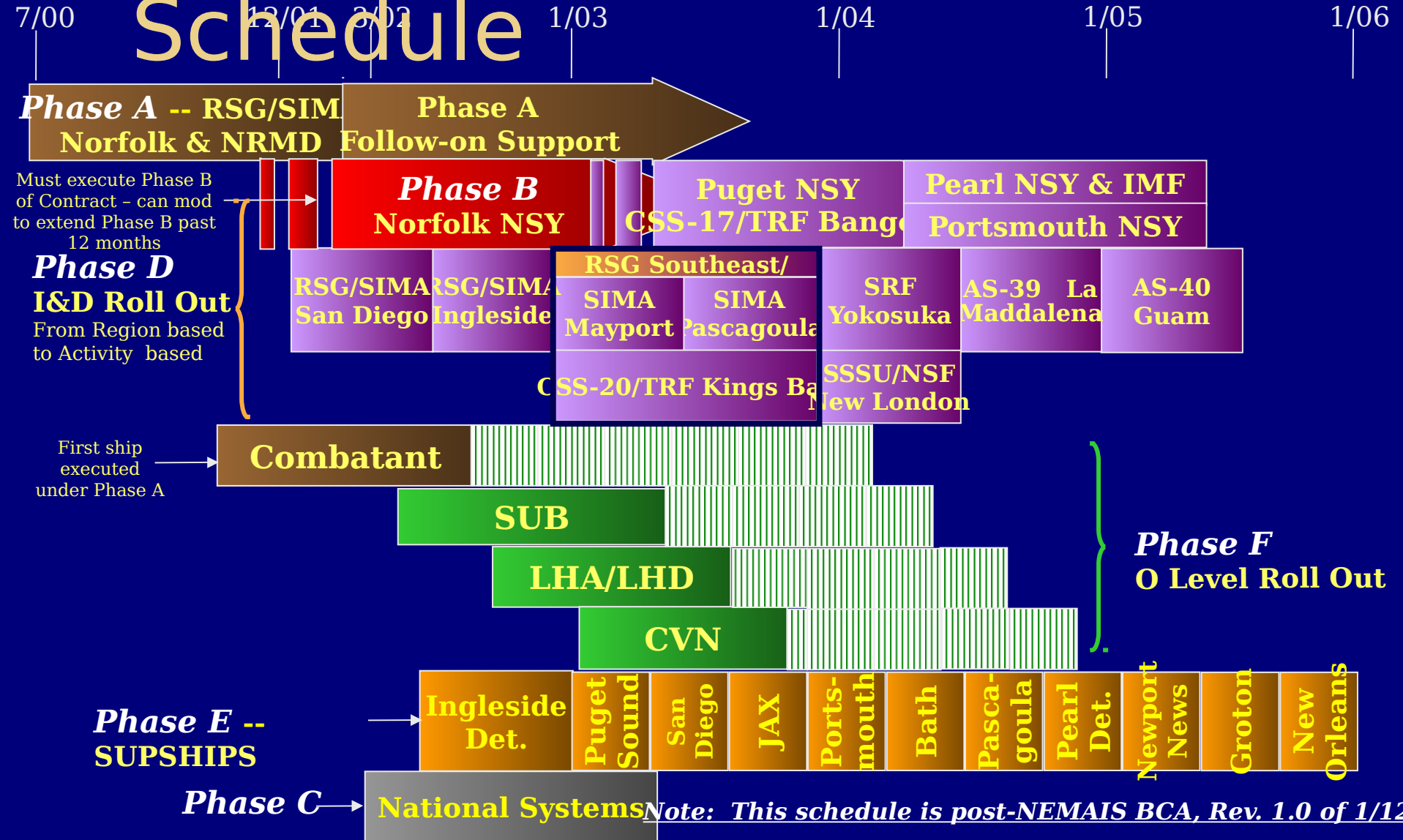
**Navy  
Enterprise  
Team  
Ships**



# What is the NETS?

- ★ The Navy Enterprise Team Ships (NETS) is a team of approximately 130 government and 120 vendor full-time personnel tasked with developing, testing and implementing the NEMAIS solution. More than 15 commands (including TYCOMs, FTSC, RSG, SIMA, SPAWAR, NNSY, Supships, and NAVSEA) have provided personnel to support this effort.

# Notional Deployment Schedule



# Regional Maintenance ERP...Phase A

What's missing? The LCM  
/ISEA!

## "O" Level Organizations

NAVSUP  
Supply Chain  
ERP Pilot

FTSC

RSG

FISC

NNS  
Y

RRC  
NRMD

SIMA

RRC

Repair  
SUPSHIP

- Identify/Eval Maint/Modern Candidate
- Broker Work
- Identify Priorities
- Assign Completion Dates
- Manage:
  - Config/Logistics
  - Resources
- Analyze/Eval Work

- Plan Work Candidate
- Management:
  - Work Execution
  - Prioritize Critical Path
- Manage:
  - Maintenance
  - Material
  - Config/Logistics
  - Resources
- Analyze/Eval Work

# Software Technical Solution

**Document  
Management**

**Docu-  
mentum**

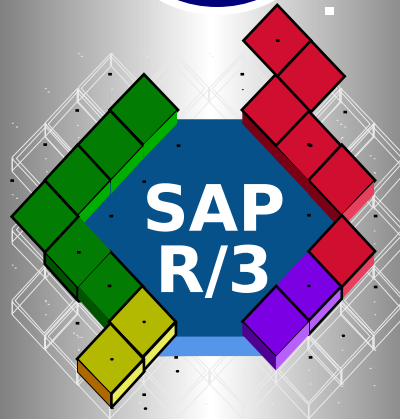
**Hazardous  
Material**

**PlantWare**

**Activity  
Based  
Costing**

**OROS 99**

**i2**  
Scheduler



**Oracle**

**Abaco**

**RF Barcode**

**MQ Series  
Integrator**

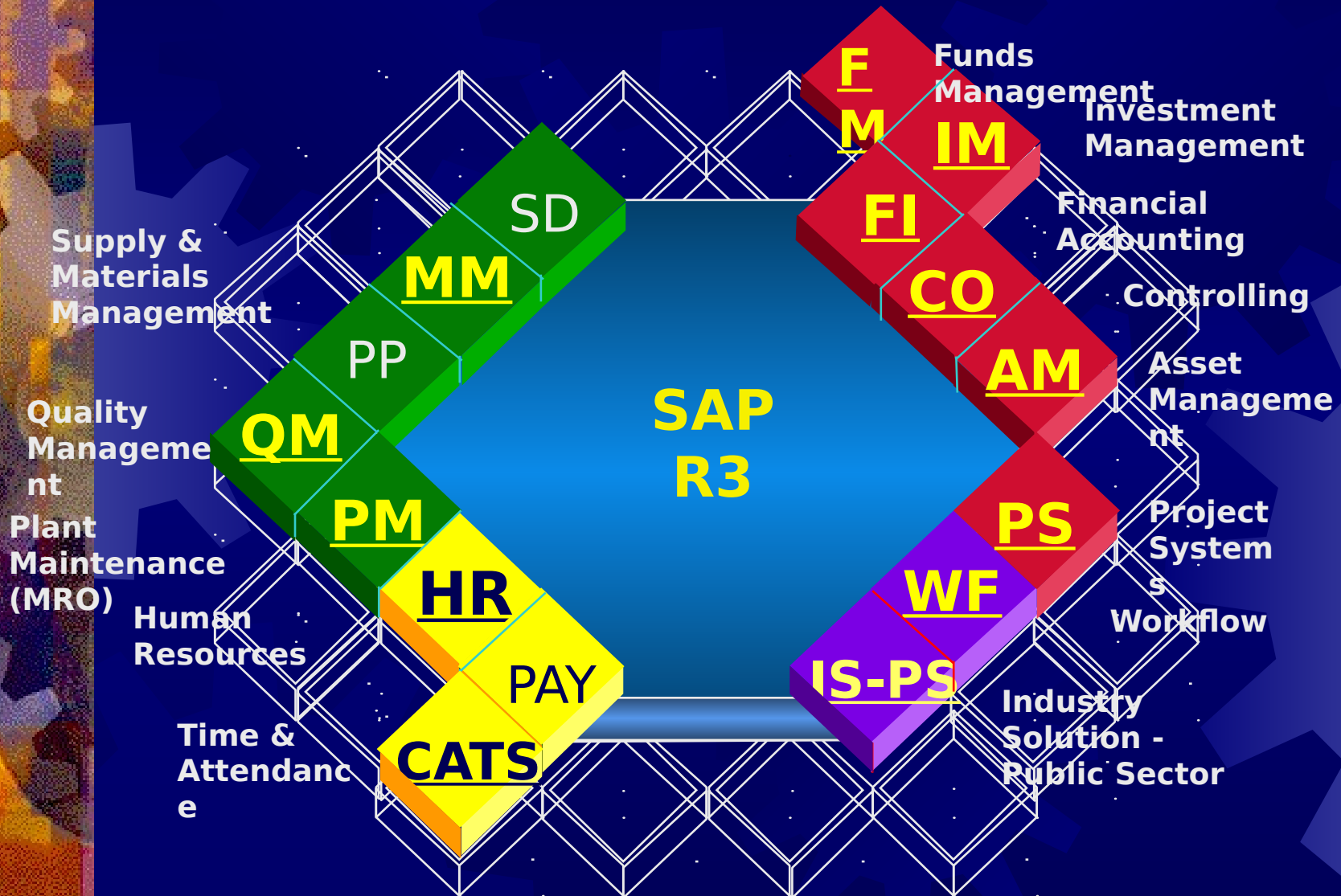
**Legacy  
System  
Interface**

**JetForms**

**Forms**

↑ ↑ ↑ **Security** ↑ ↑ ↑

# The SAP Solution





# ERP Project Metrics

- ★ **Must be operational at RSG/SIMA Norfolk by 26 Nov 01**
- ★ **Must be extensible to O, I, and D Level activities in all regions**
- ★ **Leverage best practices from industry and government**
- ★ **No core code software changes**

# What has happened to date

- ★ 12 February - NETS team brief NAVSEA Philadelphia (NSWCCD) Senior Leaders and requested ISEA/LCM participation
- ★ 30 March - NETS OPS LOG Documentation Lead requested NSWC assistance in developing the “To-Be” business process model for Managing Technical Documentation
- ★ 7 April - Mr. Gundrum NSWC BIM, task Tim Kriegel NAVSEA Philadelphia, to lead implementation of the NEMAIS “Blueprint” for NSWC and requested we engage as much of NSWC as possible

# What has happened to date (cont)

- ★ 1 May - 3 May “To-Be” business process model for Managing Technical Documentation Workshop hosted by NAVSEA Philadelphia
  - Philadelphia (T. Kriegel/M. Cohen/J. Grugan/T. Bodman and others)
  - Carderock (J. Garner and others)
  - Port Hueneme (W. Honea and others)
  - Crane (S. Rhea and others)
  - Dahlgren (T. Armentrout and others)
  - Indian Head (D. Krause)
  - NSDSA (B. Titsworth)
  - OPNAV N40 (J. Lindsey)
  - NAVSEA 04L (D. Cross-Cole)
  - NUWC, FTSCPAC/LANT, PSNS, Electric Boat, AMSEC LLC and others.....
  - SEA92L (L. McGowan provided input to White Paper)

# What has happened to date (cont)

- ★ Working Groups were established to define “To-Be” process for:
  - Determine Technical Authority
  - Issue notification of new technical documentation
  - Create new document
  - Convert document
  - Search for existing or related technical documentation
  - Issue notification of change
  - Validate change request
  - Assign security (existing and new documentation)
    - Copies of the models or “Swim Lanes” are available upon request

# What has happened to date (cont)

- ★ 11 May - NETS Team forward NEMAIS Technical Documentation Incorporation White Paper for NSWC review and comments
- ★ 15 May - forwarded to NSWC ERP Data Team Leads for input
- ★ 8 June - consolidated input provide to NSWC BIM, Mr. Ed Gundrum
- ★ 14 June - NAVSEA Philadelphia provided sample TMs and EOSS PDF files with associated Meta Data to NETS Team
  - ★ Purpose: Test the linkage from a Master Record to data loaded in Documentum



# “Our” perspective of initial impact

- ★ Document management vice Content Management
  - More in a minute.....
- ★ We assume a Non-ERP Navy will exist for some undefined period therefore dual processes will be required to support our current “As-Is” business processes and ERP “To-Be” processes
  - publishing a Semi Annual Forced Revision or Print on Demand (POD) requirements
- ★ Things like Engineer Drawing and IETMs are not part of Phase A
  - Too many issues to deal with here mentality.....

# “Our” perspective of initial impact

- ★ Documents are “linked” to Master Records and Master Records will be created by importing CM data from CDMD-OA (e.g.APLs/RINs)
  - ✱ Not everything can be tied to an APL or RIN e.g. EOSS and NSTMs
  - ✱ Type 3 records are suspect or not populated
  - ✱ Who will maintain the links and for what documents?
- ★ NEMAIS currently does not have an approved security solution
  - ✱ 90% of our data is SBU or higher



# NEMAIS Tech Doc Incorporation White Paper

Summary of Comments

J. Garner

20 Jun 2001

# Management Issues

- ✱ Inadequate funding to correct current Tech Data deficiencies
- ✱ Infrastructure tools and procedures already implemented in doc mgt for processes other than doc mgt
- ✱ Cost of converting existing scripts, codes, processes used in existing DMSs

# Technical Issues

- ✱ **Cannot handle view & markup of class 4 & 5 IETMs**
- ✱ **No technical reason for TMMAs with SGML/XML DMS to switch to Documentum**
- ✱ **Documentum cannot match component mgt of SGML docs by Content@ and other DMSs**
- ✱ **Can't handle many of the proprietary formats of existing Docs**
- ✱ **Use of Documentum in authoring is not necessary if standard formats (SGML/XML) are used**



# Analysis Limitations

- ✱ **Some TMMAs have DMSs superior to Documentum**
- ✱ **Contractors with different authoring systems are not addressed**
- ✱ **Considers only whole doc mgt and ignores component mgt.**
- ✱ **Fails to distinguish revisable/editable source content from viewable/readable published content**
- ✱ **Ignores future direction of tech data mgt, i.e., data sharing at information object level**
- ✱ **There is no technical reason to demand NEMAIS DMS at all TMMAs under selected option**

# Analysis Process Concerns

- ✱ **Adequacy of analysis of current and to-be processes**
  - insufficient sample of TMMAs
  - no external TMMAs considered
- ✱ **Inadequate consideration of raster doc access and distribution**
- ✱ **Under-estimation of:**
  - data labeling, indexing requirements
  - data identifier problems with existing legacy data
- ✱ **Doesn't address NMCI**
- ✱ **Doesn't address shipboard implementation**

# NEMAIS Plusses

- ★ Several reviewers agreed with Option 3 selection
- ★ Option 3 eliminates need to impose Documentum on TMMAs
  - ★ a benefit not recognized by ERP